

Encoder Firmware

A1D-220-V3.10.22-AC

User's Manual



www.acti.com

Table of Contents

| | | |
|------------|------------------------------------|------------|
| 1. | INSTALLATION | 1-1 |
| 1.1 | Minimum System Requirements | 1-1 |
| 1.2 | Preparation before setup | 1-2 |
| 1.2.1 | Setup your PC network | 1-2 |
| 1.3 | Configuring the IP device | 1-7 |
| 1.3.1 | Video Display | 1-9 |
| 1.3.2 | PTZ (PT/TZ Camera only) | 1-13 |
| 1.3.3 | Host Setting | 1-18 |
| 1.3.4 | WAN Setting | 1-20 |
| 1.3.5 | Date Setting | 1-23 |
| 1.3.6 | Video Setting | 1-25 |
| 1.3.7 | Video Adjustment | 1-27 |
| 1.3.8 | Video Privacy Mask | 1-29 |
| 1.3.9 | Camera Setup (CMOS camera models) | 1-30 |
| 1.3.10 | Camera Setup (PTZ camera models) | 1-32 |
| 1.3.11 | Camera Setup (HQ1 camera models) | 1-34 |
| 1.3.12 | User Account Management | 1-36 |
| 1.3.13 | System Info | 1-37 |
| 1.3.14 | Firmware Upgrade | 1-38 |
| 1.3.15 | Factory Default | 1-39 |
| 1.3.16 | Save Reboot | 1-40 |
| 1.3.17 | Logout | 1-42 |

1 INSTALLATION

1.1 Minimum System Requirements

| | |
|-------------------------|--|
| CPU | Pentium 4 2.4GHz and above |
| Hard Disk | 40 GB or above |
| Memory | 256 MB or above |
| Operating System | Windows XP with SP2 or above. IE6.0 SP2. IE7.0 only. |
| Video Resolution | SVGA or XGA with 1024x768 resolution |

1.2 Preparation before setup

Our IP device provides access through Internet Explorer. You need to set up the network settings and the IP address for the IP device. Please make sure all connections are properly connected, then follow the procedures below.

1. Setup your PC network

The IP address for your PC must be within the same subnet as the IP device. You need to match the TCP/IP settings between PC and IP device before you can access it via IE.

2. Setup IP device's IP address

This IP device's IP address can be assigned manually or acquired automatically by network service (DHCP). If it acquires the IP address by using the DHCP service, please use the IP utility software bundled in the product CD to find the IP address for all IP devices.

1.2.1 Setup your PC network

To set up the network of IP device via a PC, you have to change the TCP/IP settings of the PC.

The following are the default network settings of IP device.

IP Address: 192.168.0.100

Subnet Mask: 255.255.255.0

To access the IP device, the IP address of the PC should match the address below.

IP Address: 192.168.0.xxx

Subnet Mask: 255.255.255.0



NOTE: xxx should be a number from 1 to 254 except 100, which is used by the IP device. Please also make sure that no two equipments use the same IP address in the same network.

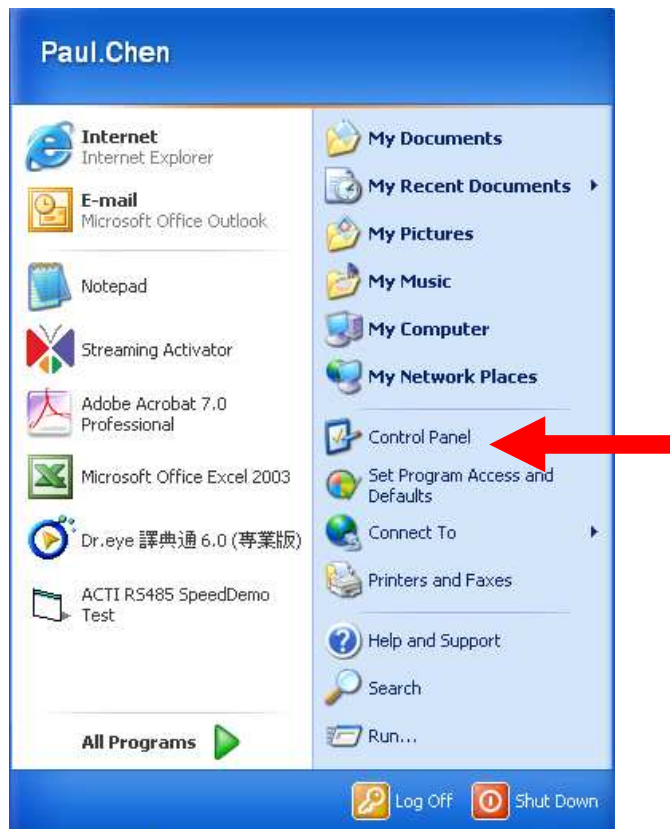
The procedures below is the setup procedure on Windows XP. If you use operating system other than Windows XP, please refer to OS manuals for proper setup procedures.

- **STEP1**

Start up your PC.

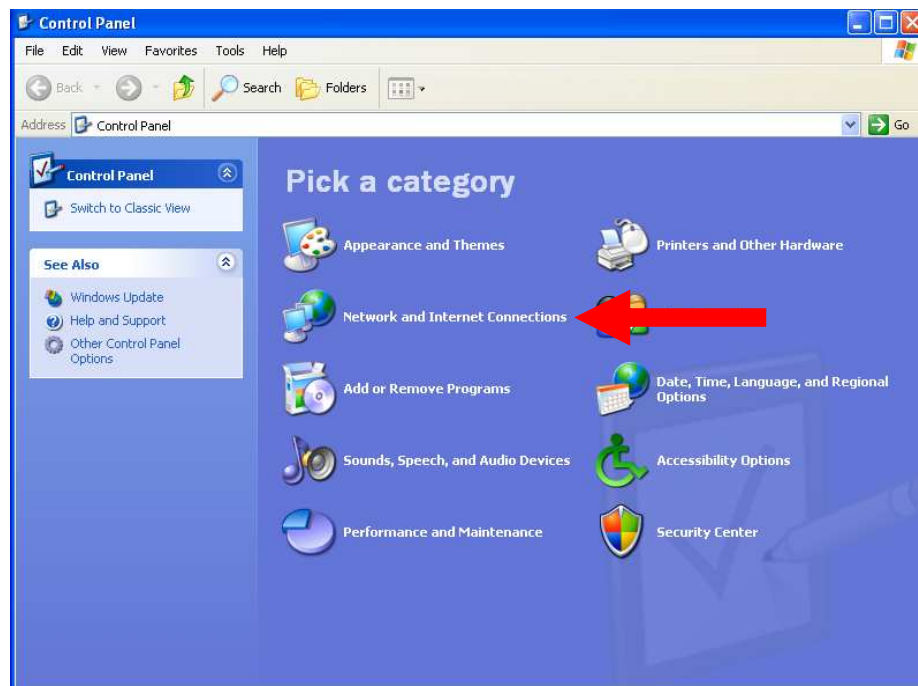
- **STEP2**

Click the [Start] and select the "Control Panel"



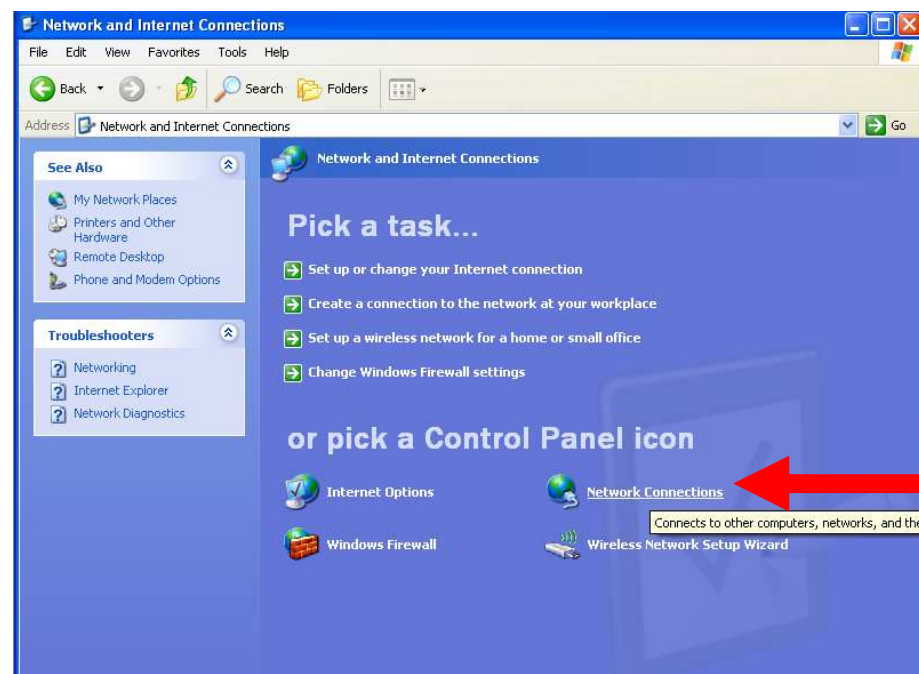
- **STEP3**

Double-click the "Network and Internet connections" icon.



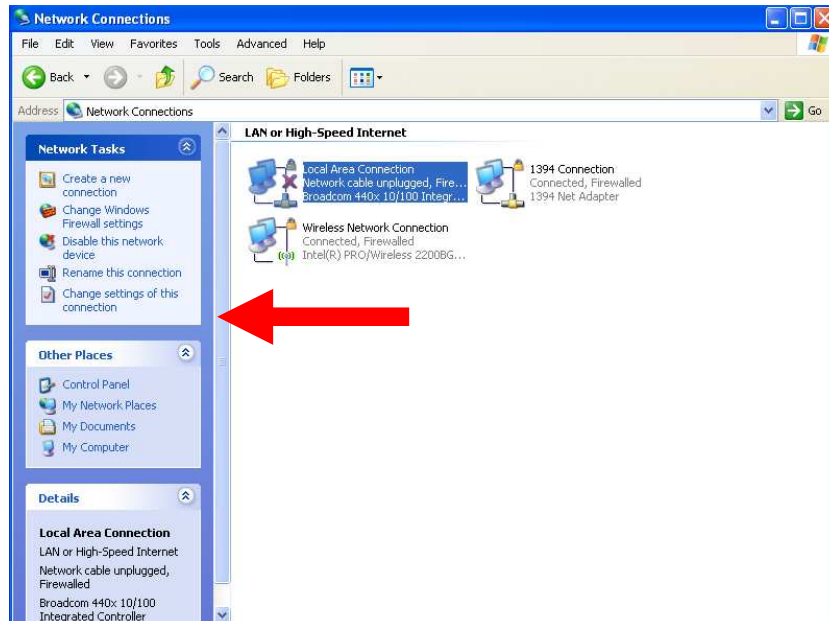
- **STEP4**

Double-click the "Network connections" icon



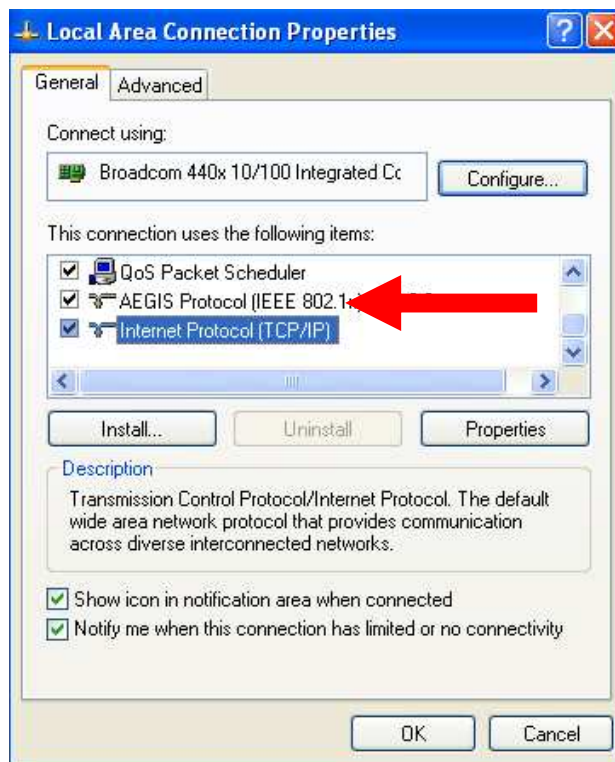
- **STEP5**

Click “Local Area Connections”, and then click “Change settings of this connection” in the network Task menu.



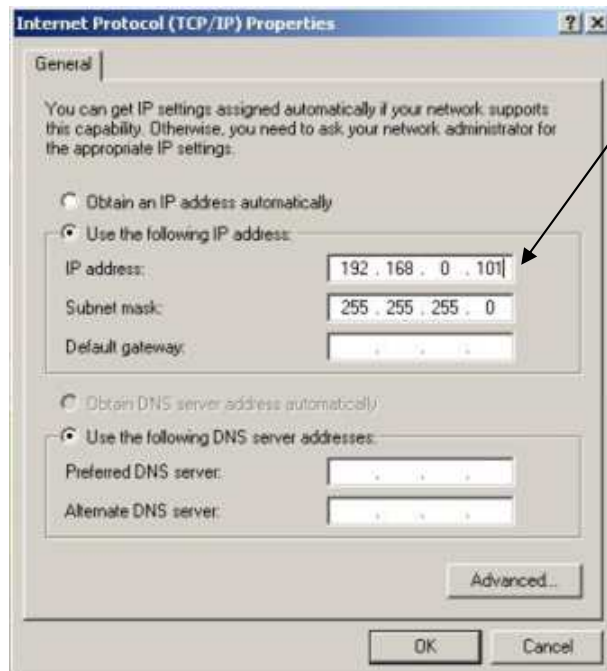
- **STEP6**

Click “Internet Protocol (TCP/IP)”, and then click the [Properties] button. If you have both IPv4 and IPv6, choose IPv4.



- **STEP7**

Click the “Use the following IP address” radio button and enter the IP address and the subnet mask.



Please set the settings as below.

IP address: 192.168. 0.xxx

Subnet mask: 255.255.255. 0

(**NOTE:** xxx should be a number from 1 to 254 except 100, which is used by the IP device. Please also make sure that no two equipments use the same IP address in the same network..)

- **STEP8**

Click the [OK] button and the window dialog box closes.

1.3 Configuring the IP device

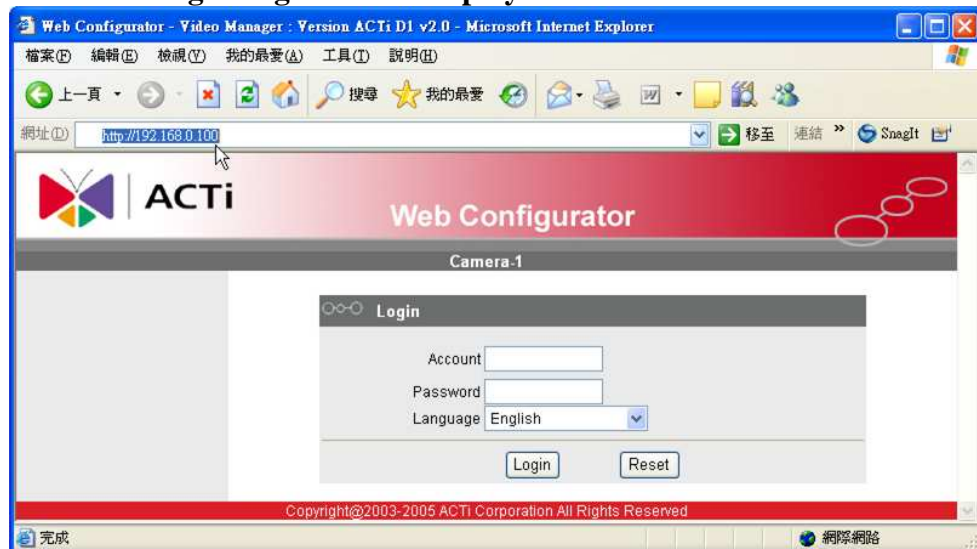
This section describes how to configure the IP device. The administrator has unlimited access to all settings, while the normal user can only view live video. The IP device is configured under a standard browser (Microsoft Internet Explorer 6.0 or above).

Follow the procedures below to configure the IP device.

- **STEP1:** Open a browser
- **STEP2:** Enter the IP address of the IP device.

The default IP address is “192.168.0.100”



The “Login Page” is now displayed as below.



- **STEP3:** Enter account name (factory default: Admin) and password (factory default: 123456).



NOTE: Internet Explorer 6.0 or above is highly recommended. You may download it from <http://www.microsoft.com/windows/ie/downloads/default.msp>

- **STEP4:** Select the language of the IP device user interface. You can select from English, Traditional Chinese, Simplified Chinese, Japanese, Spanish, Italian, German, Portuguese, Czech, French, Finnish, Hungarian and Danish. This user interface setting will disappear once you log out, if you want to change the default user interface language, please change the setting of [Host setting] after login.
- **STEP5:** Click the  button to login or click the  button to re-enter account and password.

Once you log in successfully, the “Video Display page” will be shown as below.



1.3.1 Video Display

1.3.1.1 Megapixel CMOS camera

This section tells you how to view live video via Internet Explorer.




- **STEP1:** Click the [Video Display] on the “Main Setup page”.

The “Video Display page” is displayed as below.



- **STEP2:** Check the ① [MPEG4/MJPEG] to select the Compression type. Once selected, the video server/IP camera will start to stream with the new compression method.
- **STEP3:** Click the ② [Scale Down] checkbox to scale down the SXGA(1280x1024)/720P(1280x720) to VGA resolution.
- **STEP4:** Check the ③ [Mute] checkbox to mute or play audio from the video server/IP camera.
- **STEP5:** Click the ④ [Audio Out] checkbox to enable/disable audio transmission from this PC to IP device's audio out and change audio

out volume. Ex: With this function enabled you can speak to the people at the IP device site.

- **STEP6:** Click the  [DO1] Button to trigger / untrigger DO function by DO1.
- **STEP7:** Click the  [DO2] Button to trigger / untrigger DO function by DO2.
- **STEP8:** Click the  [Quit] to exit the live view and return to “Main Setup page”.



NOTE: If the streaming is disabled, you cannot see the live images here.



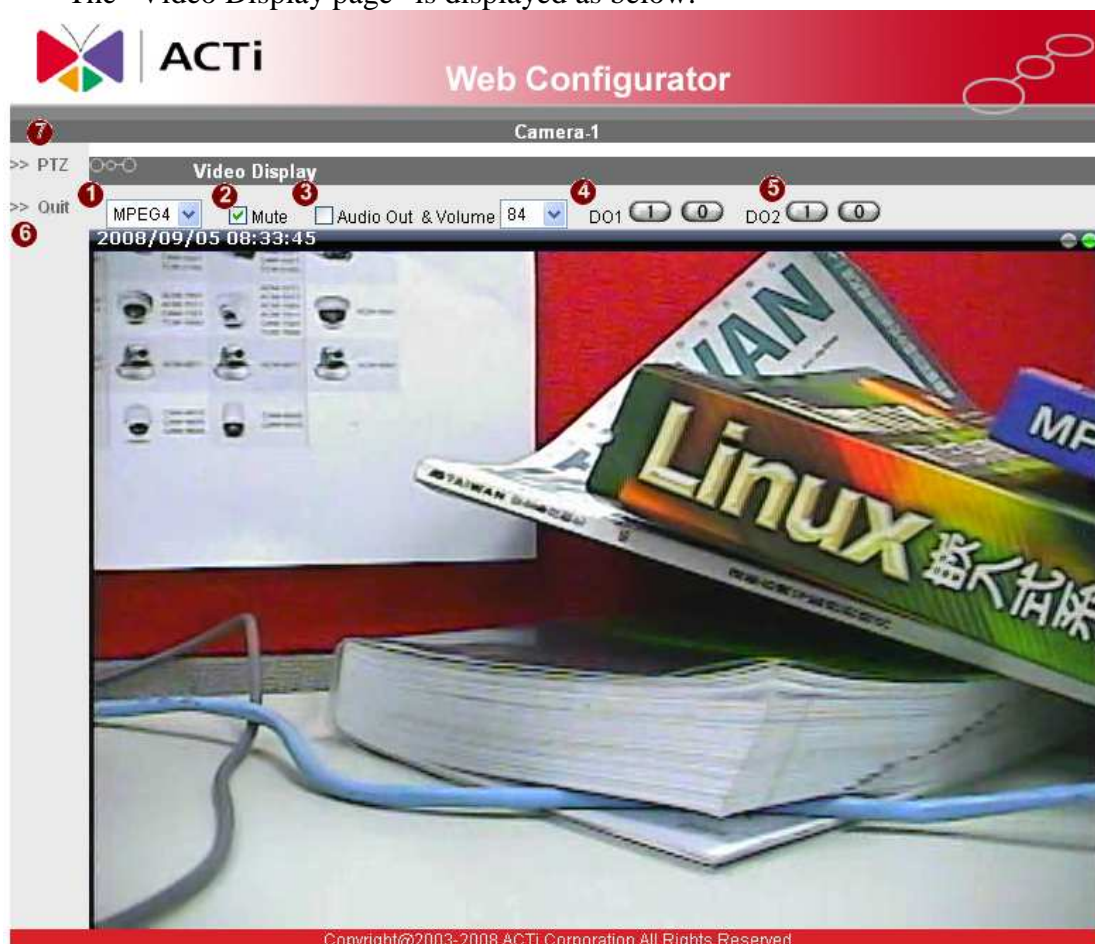
NOTE: For all network router/switches connected to this Camera/Video Server, be sure to use Auto Negotiation as the Network Connections Type. This will enable the whole network to always run at the highest possible speed. Please also refer to Network Speed & Duplex settings in Host Setting section on Page 23 of this manual

1.3.1.2 PTZ or PT camera





This section tells you how to view live video via Internet Explorer. The PTZ function is available only to “root” user(Factory default: Admin /123456). Other users cannot see this command.

- **STEP1:** Click the [Video Display] on the “Main Setup page”.

The “Video Display page” is displayed as below.



- **STEP2:** Check the ① [MPEG4/MJPEG] to select the Compression type. Once selected, the IP camera/video server will start to stream with the new compression method
- **STEP3:** Check the ② [Mute] c checkbox to mute or play audio from the video server/IP camera.
- **STEP4:** Click the ③ [Audio Out] checkbox to enable/disable audio transmission from this PC to the IP camera/video server’s audio out and change audio out volume. Ex: With this function enabled you can speak to the people at the IP device site.

- **STEP5:** Click the  [DO1] Button to trigger / untrigger DO function by DO1..
- **STEP6:** Click the  [DO2] Button to trigger / untrigger DO function by DO2.
- **STEP7:** Click the  [Quit] to exit the live view and return to “Main Setup page”.
- **STEP7:** Click the  [PTZ] to Show “PTZ Control Window”.



NOTE: If the streaming is disabled, you cannot see the live images here.

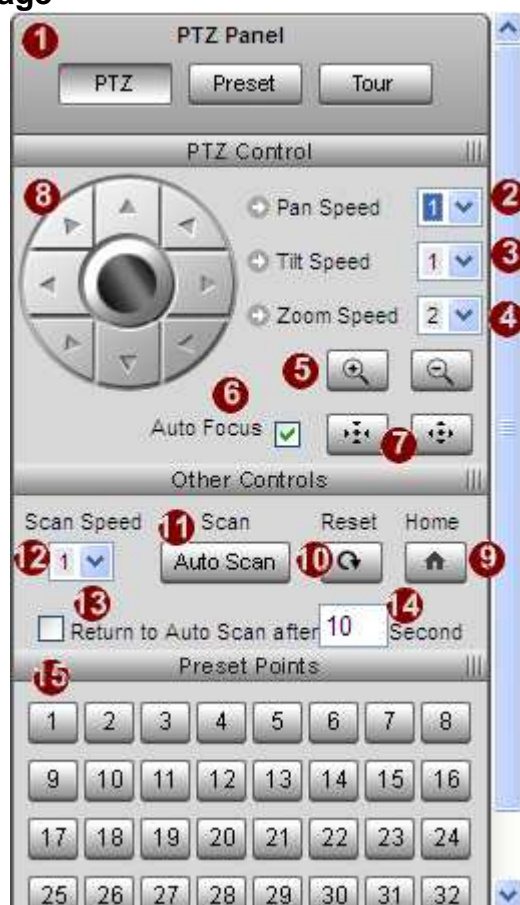


NOTE: For all network router/switches connected to this Camera/Video Server, be sure to use Auto Negotiation as the Network Connections Type. This will enable the whole network to always run at the highest possible speed. Please also refer to Network Speed & Duplex settings in Host Setting section on Page 23 of this manual.

1.3.2 PTZ (PT/TZ Camera only)

This section tells you how to control the camera. Click the [PTZ] on the “Main Setup page” to show PTZ control panel. Select a page in “PTZ Panel ” **There are three main pages: PTZ, Preset and Tour.** You also can control camera from preview display with mouse.

◆ PTZ Page

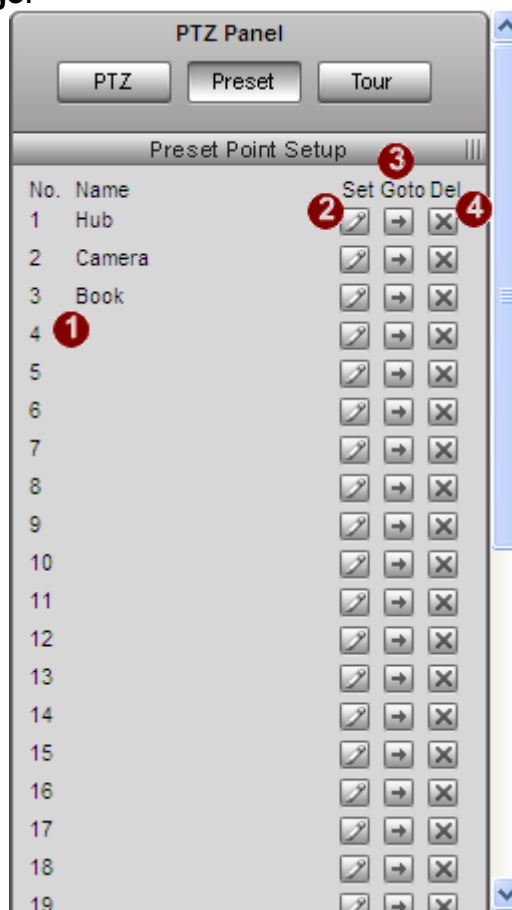


PTZ function Help

| Parameters | Description |
|----------------------|--|
| ① Page switch Button | Click these buttons to switch between “PTZ”, “Preset” and “Tour” pages |
| ② Pan Speed | Select the pan speed. |
| ③ Tilt Speed | Select the tile speed. |
| ④ Zoom Speed | Select the zoom speed. |
| ⑤ Zoom | Click + button to zoom in, - button to zoom out. |
| ⑥ Auto Focus | Click check box to enable auto focus.(PTZ camera only) |
| ⑦ Focus | Click these buttons to adjust focus to near or far. |
| ⑧ PT Control | Click each button to do pan and tilt control. |

| | |
|------------------------------|---|
| 9 Home | Click this button of go to home function. |
| 10 Reset | Click this button of reset the pan/tilt/zoom function. |
| 11 Auto-scan | Click to start scan between left limit to right limit continuously. |
| 12 Auto-scan Speed | Select the auto-scan speed. |
| 13 Auto Scan recovery | Click the check box to enable auto-scan recovery function Any manual operation will interrupt camera autoscan. If there's no further manual operation for X seconds(recovery time), the camera will resume autoscan. |
| 14 Recover time | Set the recovery time. It has to be larger than 1. |
| 15 Preset point | Click these buttons to move your camera to your desired preset points. |

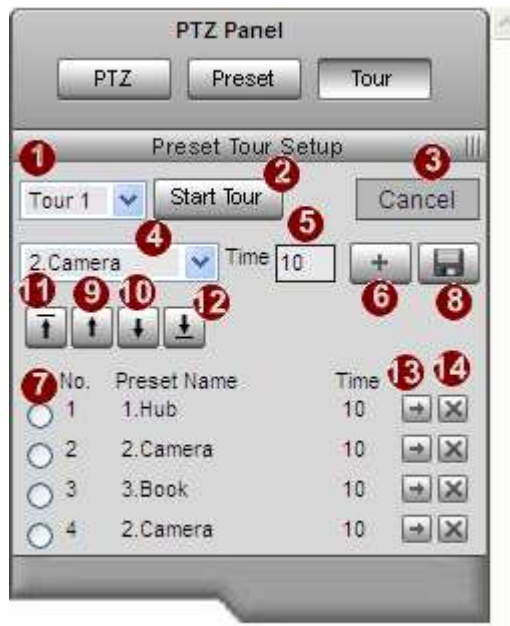
◆ **Preset Page:**



■Preset Page Help

| Parameters | Description |
|-----------------|---|
| ➊ Preset Info | Show preset number and preset name. You can click to edit the preset name |
| ➋ Set Preset | Click this button to save current preset name and PTZ position to this preset point |
| ➌ Goto Preset | Click this button to go to the PTZ position memorized for this preset point. |
| ➍ Delete Preset | Click to clear the preset point Information, including preset name and preset PTZ position. |

◆ Tour Page



■Tour Page Help

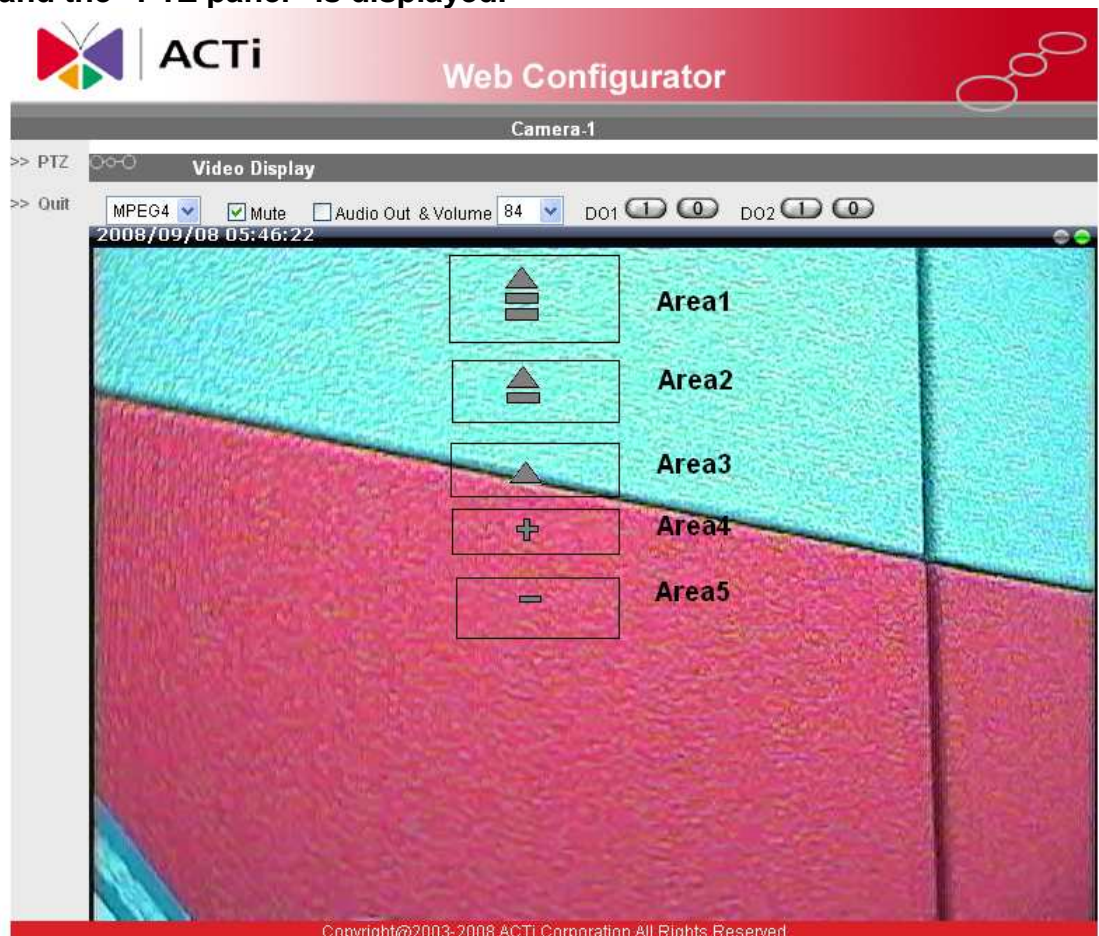
| Parameters | Description |
|--------------------|---|
| ➊ Tour Group ID | Select a tour group to start or to edit. There are 10 groups available |
| ➋ Start Tour | Click to start the tour selected |
| ➌ Edit/ Cancel | Click to edit or cancel the tour setting. |
| ➍ Preset Name | Select a preset to be added in this preset tour |
| ➎ Time | Enter the interval of time for the camera to stay in this preset point in this preset tour. This time includes the time it move from previous preset point to this preset point |
| ➏ Add Preset Point | Click to add preset point in this preset tour |
| ➐ Preset Point | Click to select preset point. |






| | |
|--------------------|--|
| Select | |
| 8 Apply | Click to apply the tour setting. |
| 9 Move one earlier | Click to move this preset point one earlier in queue. |
| 10 Move one later | Click to move this preset point one later in queue. |
| 11 Move to first | Click to move this preset point to the first in queue. |
| 12 Move to last | Click to move this preset point to the last in queue. |
| 13 Goto Preset | Click to go to the PTZ position for this preset point. |
| 14 Preset Del | Click to remove the preset point from this preset tour. Note, the settings of this preset point will NOT be deleted |

◆ Mouse Control:

You can click on the preview window to directly control Camera PTZ movements. The closer your cursors are to the edge, the faster the camera will move in Pan and Tilt. To Zoom in and out, move the cursor close to the center and click when the cursor changes to the + or – sign.

NOTE: This function is valid only AFTER you click the “PTZ” and the “PTZ panel” is displayed.



| ■ Mouse PTZ Help | |
|---|---|
| Parameters | Description |
|  | Click area 1 to P/T with fast speed |
|  | Click on area 2 to P/T with normal speed |
|  | Click on area 3 to P/T with slow speed |
|  | Click on area 4 to do zoom in. |
|  | Click on area 5 to do zoom out. |
| Mouse wheel | Use mouse wheel to do zoom in and zoom out. |



NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.

1.3.3 Host Setting

This section tells you how to setup IP device's host settings and LAN settings.

- **STEP1:** Click the [Host Setting] on the “Main Setup page”.

The “Host setting page” is displayed as below.

ACTi Web Configurator

Camera-1

>> Video Display
>> Host Setting
>> WAN Setting
>> Date Setting
>> Video Setting
>> Video Adjust
>> User Account
>> System Info
>> Firmware
>> Factory Default
>> Save Reboot
>> Logout

Host Setting

Host Name: ACTi
Language: English
[Apply] [Reset]

Network Link Speed & Duplex

WAN Port: Auto Detect
[Apply] [Reset]

ToS(Type of Service)

ToS(Type of Service): Disabled
ToS Priority: Normal-Service
[Apply] [Reset]

Port Mapping

HTTP Port: 80
Search Server Port 1: 6005
Search Server Port 2: 6006
[Apply] [Reset]

Copyright©2003-2006 ACTi Corporation All Right Reserved

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■Host Setting

| Parameters | Description |
|-------------|---|
| 1 Host name | Enter a host name, and this host name will be shown when you use the IP utility or the SDK to search for the IP device. |
| 2 Language | Select the language of default user-interface. Every user will see the default user-interface first when logging in. |

■ Network link speed & duplex

| Parameters | Description |
|-------------------|--|
| 5 WAN port | This item lets you select the network transmission speed of WAN port. You can select from 1. Auto detect (default setting) 2. 100Mbps / Full duplex 3. 100Mbps / Half duplex 4. 10Mbps / Full duplex 5. 10Mbps / Half duplex |

■ ToS (Type of Service)

| Parameters | Description |
|--------------------------------|--|
| 6 TOS (type of service) | Select whether to add the TOS tag onto the streaming data. Streaming data with a higher priority TOS tag will be transmitted first while compared with other data to be transmitted. |
| 7 TOS priority | Select the TOS tag's priority to be added onto the streaming. You can select between 1. Normal-Service 2. Minimize-Cost 3. Maximize-Reliability 4. Maximize-throughout 5. Minimize-Delay |

■ Port Mapping

| Parameters | Description |
|-------------------------------|--|
| 8 HTTP port | Select the port for this IP device to use HTTP protocol. |
| 9 Search server port1 | Select the first port on which software applications can find this IP device with. (e.g. IP utility). |
| 10 Search server port2 | Select the second port on which software applications can find this IP device with. (e.g. IP utility). |

- **STEP3:** Click the **3** [Apply] button for each section to confirm the settings or click the **4** [Reset] button to re-enter the parameters.



NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.



NOTE: For all network router/switches connected to this Camera/Video Server, be sure to use Auto Negotiation as the Network Connections Type. This will enable the whole network to always run at the highest possible speed. Please also refer to Network Speed & Duplex settings in Host Setting section on Page 23 of this manual.

1.3.4 WAN Setting

This section tells you how to setup IP device's WAN, DNS server and DDNS server settings.

- **STEP1:** Click the [WAN Setting] on the “Main Setup page”.

The “WAN setting page” is displayed as below

ACTi Web Configurator
Camera-1

WAN Setting *

☒ Dynamic IP Address

☐ Static IP Address

IP Address: 192 . 168 . 0 . 100

Subnet Mask: 255 . 255 . 255 . 0

ISP Gateway: 192 . 168 . 0 . 254

☐ PPPoE

User Name:

Password:

Apply Reset

DNS Server Setting

Primary DNS Server: . . .

Secondary DNS Server: . . .

Apply Reset

DDNS Server Setting

DDNS Type: Disable

Service ISP: members.dyndns.org

Host Name:

User Name:

Password:

Apply Reset

Copyright©2003-2006 ACTi Corporation All Right Reserved

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■WAN Setting



| Parameters | Description |
|-----------------------------|--|
| 1 Dynamic IP address | Click this to enable IP device's DHCP function. It will acquire its WAN port IP address from a DHCP server within the same network. (You must have a DHCP server in order to enable this function.) |
| 2 Static IP address | Click this to manually enter the IP device WAN port IP address. 3 IP address: Enter the WAN port IP address. 4 Subnet mask: Enter the subnet mask of WAN port. If IP address is changed, adjust the subnet mask accordingly. 5 ISP gateway: Enter the IP address of the gateway (the router). |
| 6 PPPoE | Click this when you connect IP device directly to the xDSL modem. 7 User name: Enter the user name of your xDSL account. 8 Password: Enter the password of your xDSL account. Note: You have to click the [Save Reboot] after you click the [Apply button] to let this IP device start xDSL connections. |

■DNS server Setting

| Parameters | Description |
|--------------------------------|---|
| 11 Primary DNS server | Defines the IP address of the primary DNS server. This is used for identifying this computer by name instead of IP address. |
| 12 Secondary DNS server | The IP address of the secondary DNS server. It will be used once the primary DNS server fails. |

■DDNS server Setting

| Parameters | Description |
|-----------------------|--|
| 13 DDNS type | Click this to enable IP device's DDNS function. DDNS function enables user to connect to this IP device by domain name even if its IP address is not static. |
| 14 Service ISP | Click one of the DDNS service providers. You can visit their website to get a DDNS service account for this IP device. |
| 15 Host name | Enter the host name of your DDNS service account. (ex: xxxx.dyndns.org) |
| 16 User name | Enter the login user name for your DDNS service account. |
| 17 Password | Enter the login password for your DDNS service account. |

- **STEP3:** Click the  [Apply] button for each section to confirm the settings or click the  [Reset] button to re-enter the parameters.



NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.



NOTE: For all network router/switches connected to this Camera/Video Server, be sure to use Auto Negotiation as the Network Connections Type. This will enable the whole network to always run at the highest possible speed.

1.3.5 Date Setting

This section tells you how to setup IP device's date and time settings.

- **STEP1:** Click the [Date Setting] on the “Main Setup page”.

The “Date setting page” is displayed as below

- **STEP2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■ Date Setting

| Parameters | Description |
|---------------------------|---|
| 1 SNTP/NTP server | Click this to enable IP device's SNTP/NTP function. SNTP/NTP function enables this video to synchronize its time settings with a SNTP/NTP server. You can use this function to make sure all your IP devices' time is the same. Additionally, with our embedded digital-time-code in the streaming, you can tell the event sequence accurately. 2 IP address: Enter the IP address of the SNTP/NTP server. 3 Sync time: Select the time interval for this IP device to synchronize its time. |
| 4 Set manually | Click this to manually setup the date & time. 5 Date : Select the date 6 Time: Select the time |
| 7 Time zone | Select the time zone offset for local settings |
| 8 Day Light Saving | 9 Select Type 1 to specify daylight saving time by week |

| | |
|--|---|
| | number in a month; select Type 2 to specify daylight saving time by date. 10 Start Time : Select the daylight savings start time. 11 End Time : Select the daylight savings end time. |
|--|---|

- **STEP3:** Click the **12** [Apply] button of each setting to confirm the settings or click the **13** [Reset] button to re-enter the parameters.



NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.
 Manually set date and time will NOT be kept if device loses power.



















1.3.6 Video Setting



This section tells you how to setup IP device's video and streaming settings.

- **STEP1:** Click the [Video Setting] on the "Main Setup page".

■ Video setting

| Parameters | Description |
|------------------------------|--|
| 1 Camera name | The camera name is reserved for customer use. |
| 2 Streaming Method | Select the streaming mode. 1. TCP only 2. Multicast only 3. RTP Over UDP 4. RTP Over Multicast 5. RTP Over UDP & Multicast |
| 3 RTSP Authen Enable | Check box to enable RTP streaming's Account/Password authentication. |
| 4 RTP B2 Frame Enable | Check box to enable the B2 frame in RTP streaming |
| 5 Audio | Select enable or disable the audio function. |
| 6 Input Sensitivity | Select HIGH or LOW of the audio input sensitivity |

| | |
|---|---|
|  Multicast IP | Select the multicast IP. Default settings is 228.5.6.1 |
|  Multicast TTL | Select the multicast TTL. Default setting is 255. |
|  IGMP | This option appears only in Multicast. Enabling it will enable using IGMP membership to do multicast. |
|  Resolution | Select the video resolution of the IP device. |
|  Frame rate mode | Select the frame rate mode. Constant: The streaming's frame rate remains constant at all conditions. Variable: The streaming frame rate will vary according to the amount of motion and change in the scene to maintain proper image quality. |
|  Frame rate | Select the frame rate of the video streaming. |
|  Encoder Type | Select the encoder's compression type. 1. MPEG4 2. MJPEG |
|  Video Bitrates Mode | Select the video bitrate mode. Constant Bit Rate: The streaming's bitrate remains constant at all conditions. Variable Bit Rate: The streaming bit rate will vary according to the amount of motion and change in the scene to maintain image quality.. |
|  Video Maximum Bitrate | Select the Maximum bitrate of the video streaming. If the bitrate limit is too low, actual frame rate may also be limited. Doing so will also disable Bit Rate setting below. |
|  Bitrate | Select the bit rate of the video streaming. You can select from 28Kbps to 3Mbps. Note: Lower bit rate consumes less bandwidth but delivers lower quality images.High bit rate consumes more bandwidth but delivers higher quality images. |
|  Serial Port Baud Rate | Select the Baud Rate setting of serial port. |
|  Serial Port Control | Select the Control setting of serial port. |
|  RTSP port | Select the port for this IP device to support RTSP |
|  Video RTP Over Multicast | Enable/disable the multicast video streaming via RTP protocol |
|  Audio RTP Over Multicast | Enable/disable the multicast audio streaming via RTP protocol |
|  Video control port | Select the port through which software applications may control this IP device. |
|  Video streaming port (TCP Only) | Select the port through which software applications may establish video streaming with this IP device. |
|  Video multicast port (Multicast Only) | Select the port for this IP device to support video multicast function of the application program. |

STEP2: Click the  [Apply] button to confirm the settings or click the  [Reset] button to re-enter the parameters.

1.3.7 Video Adjustment

This section tells you how to adjust the streaming video.

- **STEP1:** Click the [Video Adjust] on the “Main Setup page”.

The “Video adjustment page” is displayed as below

ACTi Web Configurator

Camera-1

Video Adjustment

2000/02/11 22:11:44

Activity

☒ Motion Enable

| Region | Enable | Sensitivity [0-100] | Trigger Interval [1-300sec] | Trigger Threshold [0-100%] |
|--------|-------------------------------------|---------------------|-----------------------------|----------------------------|
| 1 | <input checked="" type="checkbox"/> | 70 | 1 | 10 |
| 2 | <input checked="" type="checkbox"/> | 70 | 1 | 10 |
| 3 | <input checked="" type="checkbox"/> | 70 | 1 | 10 |

☒ Response to DOs

| Output | Enable | Region | Set Level |
|--------|-------------------------------------|----------|-----------|
| DO 1 | <input checked="" type="checkbox"/> | Region 1 | High |
| DO 2 | <input checked="" type="checkbox"/> | Region 2 | High |

Apply

Brightness 63

Saturation 85

Contrast 51

Apply Reset

Copyright©2003-2008 ACTi Corporation All Rights Reserved

- **STEP2:** Check this box to enable motion detection
- **STEP3:** Check this box to enable motion detection for individual region.

- **STEP4:** Set the **4** sensitivity of motion detection region.
- **STEP5:** Set the **5** interval time of motion detection. After a motion event is triggered, no more event will be triggered within this time in the same region.
- **STEP6:** Set the **6** trigger threshold of this motion detection region.
- **STEP7:** In motion activity window **2**, the bar shows the motion activity status. You can also see the trigger threshold (Red line). When the motion activity exceeds the trigger threshold, the bar would become red to indicate that a motion event has been triggered. While viewing the motion activity window, you can adjust the motion sensitivity (for more or less activities to be triggered) and the threshold (for how many activities would trigger a motion event. If the default settings are not satisfactory for your scene, you may try our alternative recommendations of:
 - a. Sensitivity: 80, Threshold: 2~5 (for normal environment)
 - b. Sensitivity: 80, Threshold: 5~10 (for very noisy environment)
- **STEP8:** When satisfied with the motion settings, click the **7** [Apply]
- **STEP9:** Adjust the video by changing the value of **8** “Brightness”, **9** “Saturation” and **10** “Contrast”. See the images displayed above for the effect of the current setting.
- **STEP10:** Check this box **17** to enable DO handler with MD. Click **14** to enable DO1 or DO2 for response. Click **15** to Select a MD region to link with this DO. Click **16** to determine the DO handler to be high or low.
- **STEP11:** When you are satisfied with the video settings, click the **11** [Apply] button of each section to confirm the settings. Otherwise, you may also click the **12** [Reset] to restore previous settings.



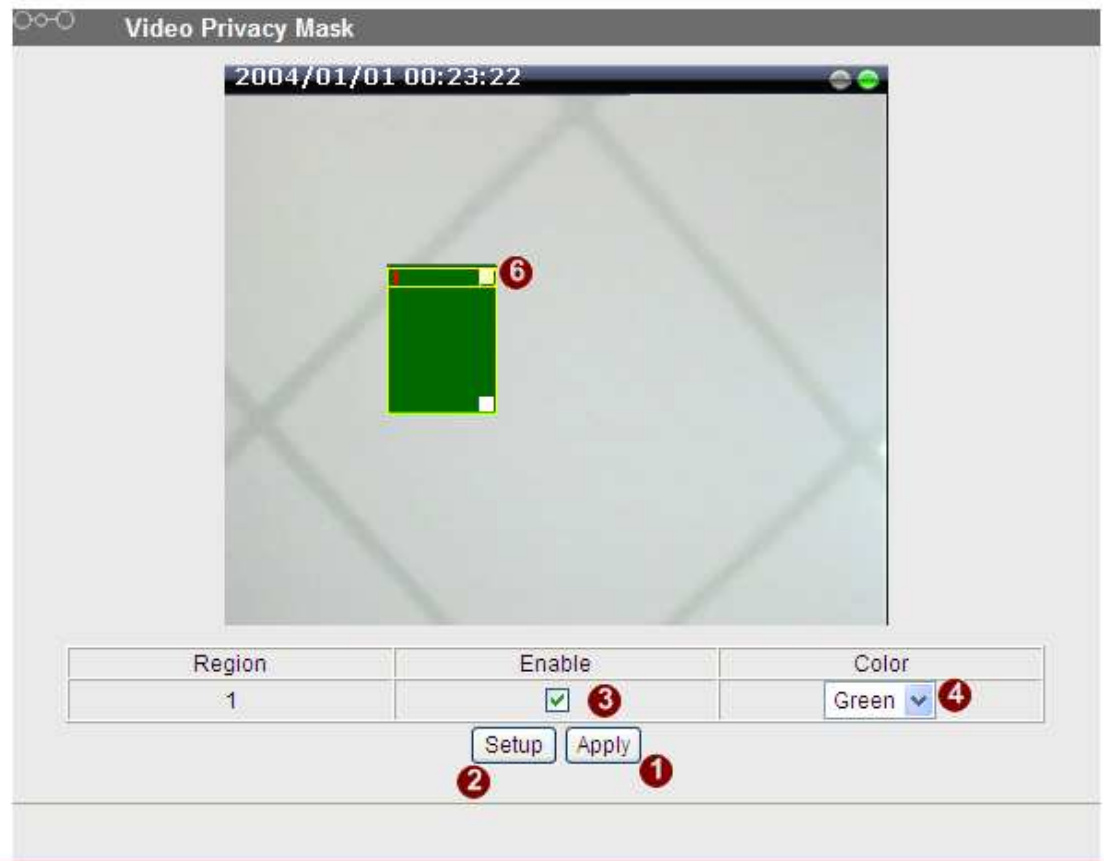
NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.

1.3.8 Video Privacy Mask

This section explains how to setup video privacy mask..

- **STEP1:** Click the [Video Privacy Mask] on the “Main Setup page”.

The “Video Privacy Mask” is displayed as below



- **STEP2:** Click **2** “setup” button to setup privacy mask region
- **STEP3:** Check **3** this box to enable privacy mask function
- **STEP4:** Click the **4** to select the color for privacy mask. There are 4 colors to select.
- **STEP5:** **6** To change the position, shape and size of the privacy mask, click and drag on the white square at the lower right of the rectangular privacy mask region.
- **STEP6:** Click the **1** [Apply] button to confirm current privacy mask settings. You need to wait for 10-15 seconds for new settings to take effect.

1.3.9 Camera Setup (CMOS camera model s)

This section tells you how to adjust the camera.

- **STEP1:** Click the [Camera Setup] on the “Main Setup page”.

The “Camera Setup page” is displayed as below



■Camera setting

| Parameters | Description |
|-----------------------------------|---|
| 1 Video Flipping | Check this box to flip the video up-down |
| 2 Video Mirror | Check this box to mirror the video left-right |
| 3 Lens Compensation | Check this box to use best pre-set settings for bundled lens |
| 4 NightTime Gain Threshold | This value controls the level of light where camera switches into night mode. Increasing it will make camera switch to night mode at a darker illumination level. |

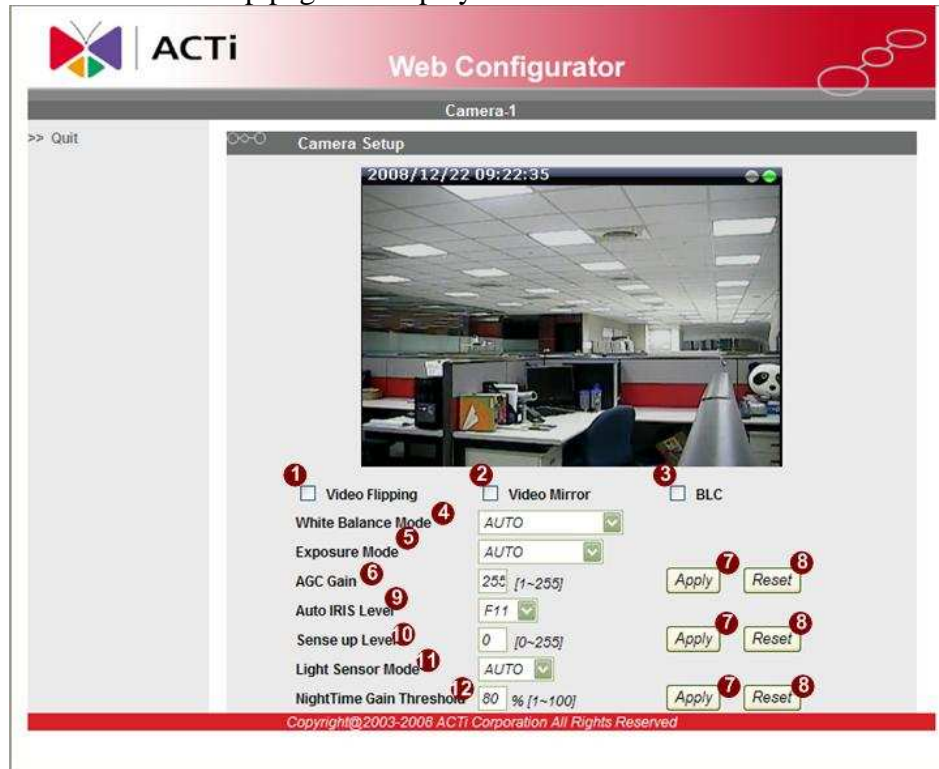
| | |
|--|--|
| <p>7 White Balance Mode</p> | <p>Select the white balance mode. After you set the parameter, you need to wait for 5~10seconds to see the final result.</p> <ol style="list-style-type: none"> 1. AUTO : Auto white balance (default) 2. INDOOR1: Select the indoor white balance profile 1. 3. INDOOR2: Select the indoor white balance profile 2. 4. OUTDOOR1: Select the outdoor white balance profile 1. 5. OUTDOOR2: Select the outdoor white balance profile 2 6. HOLD CURRENT: Select this to let the IP camera automatically obtain a best white balance setting according to current environment. The IP camera will use this setting to adjust color. NOTE: This setting will be lost after you reboot the camera. 7. MANUAL: Select this to enable manual setting of the white balance. You will need to enter the R Gain and B gain setting below. |
| <p>8 R Gain (Manual White balance mode only)</p> | <p>Add or decrease redness to the video when under Manual White Balance mode. (This function is only available in Manual White balance mode.)</p> |
| <p>9 B Gain (Manual White balance mode only)</p> | <p>Add or decrease blueness to the video when under Manual White Balance mode. (This function is only available in Manual White balance mode.)</p> |
| <p>10 Exposure mode</p> | <p>Select exposure mode to auto or manual.</p> <ul style="list-style-type: none"> - Auto: The IP camera will adjust the exposure automatically. - Manual: (In Manual White balance mode only) Manually select the Exposure Gain and Shutter Speed below. |
| <p>11 Exposure Gain</p> | <p>Select the Exposure Gain of the IP camera. The higher the value = brighter images.</p> |
| <p>12 Shutter Speed</p> | <p>Increase or decrease the shutter speed. The higher the value, the better the nighttime performance. Although higher values also causes motion to become blurry.</p> |
| <p>13 AGC Gain (In auto Exposure mode only)</p> | <p>When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. Higher AGC gain = brighter images.</p> |
| <p>13 Maximum Auto Shutter Speed (In auto Exposure mode only)</p> | <p>When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. This setting is to set the maximum shutter speed range of this camera.</p> |
| <p>14 Flickless Mode</p> | <p>Change settings between 60Hz or 50Hz, depending on the AC power type of your region.</p> |

STEP2: Click the **5** [Apply] button of each section to confirm the settings or click the **6** [Reset] button to re-enter the parameters.

1.3.10 Camera Setup (PTZ camera models)

- **STEP1:** Click the [Camera Setup] on the “Main Setup page”.

The “Camera Setup page” is displayed as below



■ Camera setting

| Parameters | Description |
|-----------------------------|---|
| 1 Video Flipping | Check this box to flip the video up-down |
| 2 Video Mirror | Check this box to mirror the video left-right |
| 3 BLC | Check this box to enable back light compensation. |
| 4 White Balance Mode | <p>Select the white balance mode. After you set the parameter, you need to wait for 5~10seconds to see the final result.</p> <ol style="list-style-type: none"> 1. AUTO : Auto white balance (default) 2. HOLD CURRENT: Select this to let the IP camera automatically obtain a best white balance setting according to current environment. The IP camera will use this setting to adjust color. NOTE: This setting will be lost after you reboot the camera. 3. MANUAL: Select this to enable manual setting of the white balance. |

| | |
|------------------------------------|--|
| 5 Exposure mode | Select exposure mode. <ul style="list-style-type: none"> - Auto: The IP camera will adjust the exposure automatically. - Shutter Priority: The IP camera will adjust the exposure by shutter priority first. - Iris Priority: The IP camera will adjust the exposure by Iris priority first. - Manual: Manually select the Exposure Gain and Shutter Speed below. |
| 6 AGC Gain | When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. Higher AGC gain = brighter images. |
| 9 Auto IRIS Level | Select the Iris level. |
| 10 Sense up Level | Select the sense up level. |
| 11 Light Sensor Mode | Select light sensor mode. <ul style="list-style-type: none"> - Auto: The IP camera will automatically switch between day or night mode according to lighting level - Day: The IP camera will always stay in day mode. - Night: The IP camera will always stay in night mode. |
| 12 NightTime Gain Threshold | This value controls the level of light where camera switches into night mode. Increasing it will make camera switch to night mode at a darker illumination level. |

STEP2: Click the **7** [Apply] button of each section to confirm the settings or click the **8** [Reset] button to re-enter the parameters.

1.3.11 Camera Setup (HQ1 camera models)*

This section applies only to ACM-58x1 / ACM-78x1. Some functions listed here may not be available to all models.











- **STEP1:** Click the [Camera Setup] on the “Main Setup page”.

The “Camera Setup page” is displayed as below



■ Camera setting

| Parameters | Description |
|----------------------|---|
| 1 Video Mirror | Check this box to flip the video up-down |
| 2 BLC | Check this box to mirror the video left-right |
| 3 White Balance Mode | Select the white balance mode. After you set the parameter, you need to wait for 5~10seconds to see the final result. |

| | |
|--|--|
| | <p>4. AUTO : Auto white balance (default)</p> <p>5. HOLD CURRENT: Select this to let the IP camera automatically obtain a best white balance setting according to current environment. The IP camera will use this setting to adjust color. NOTE: This setting will be lost after you reboot the camera.</p> <p>6. MANUAL: Select this to enable manual setting of the white balance.</p> |
|  Exposure mode | <p>Select exposure mode.</p> <ul style="list-style-type: none"> - Auto: The IP camera will adjust the exposure automatically. - Shutter Priority: The IP camera will adjust the exposure by shutter priority first. - Iris Priority: The IP camera will adjust the exposure by Iris priority first. - Manual: Manually select the Exposure Gain and Shutter Speed below. |
|  AGC Gain | When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. Higher AGC gain = brighter images. |
|  Line Frequency | Change settings between 60Hz or 50Hz, depending on the AC power type of your region.. |
|  Flickerless Mode | Enable the flickerless or disable the flickerless mode |
|  Day/Night mode | <p>Select the day/night mode.</p> <ol style="list-style-type: none"> 1. Auto: The camera would automatically switch between day and night mode according to lighting levels. It will follow the Day Gain and Night Gain threshold defined by user below. 2. Day : The camera will stay in day (color) mode. 3. Night: The camera will stay in night (black & white) mode. |
|  Trigger Source | <p>The camera will use the method selected here to determine when to do day/night switch.</p> <p>Use CdS sensor when the camera is generally in the same lighting condition as the view area. Use ISP if the camera itself has a different lighting condition from the view area, or if you wish to have a finer control for Day/night switch. We recommend using CdS as default.</p> |
|  Night Gain Threshold | The camera would switch to night (black & white) based upon lighting conditions. Increasing it will shift the switching point darker. |
|  Day Gain Threshold | The camera would switch to day (color) mode ased upon lighting conditions. Increasing it will shift the switching point darker. |
|  IRCut Filter Mode | <p>Select IR Cut Filter Mode:</p> <ol style="list-style-type: none"> 1. Auto: Default mode, IRCut filter mode works normally. 2. Disable: IRCut filter function is disabled. In this mode, The video will remain in color mode when entering night mode. |
|  IRLED Switch | Select auto mode if you want IR LED to work normally. If you do not wish IR LED to turn on when in night mode, Select disable mode. |

STEP2: Click the **8** [Apply] button to confirm the settings or click the **9** [Reset] button to re-enter the parameters.

1.3.12 User Account Management

This section tells you how to setup the accounts.

- **STEP1:** Click the [User account] on the “Main Setup page”.

The “Account management page” is displayed as below

| User | Account | Password |
|---------|---------|----------|
| Root | Admin | 123456 |
| User 1 | | |
| User 2 | | |
| User 3 | | |
| User 4 | | |
| User 5 | | |
| User 6 | | |
| User 7 | | |
| User 8 | | |
| User 9 | | |
| User 10 | | |

- **STEP2:** Setup the account names and their respective passwords.
There are **1** root (administrator) account **2** and 10 common user accounts allowed. Root(administrator) account allows the user to watch the live view and modify all settings. The common user account only allows live video view, and cannot change settings.
- **STEP3:** Click the **3** [Apply] button to confirm the settings or click the **4** [Reset] button to re-enter the parameters.



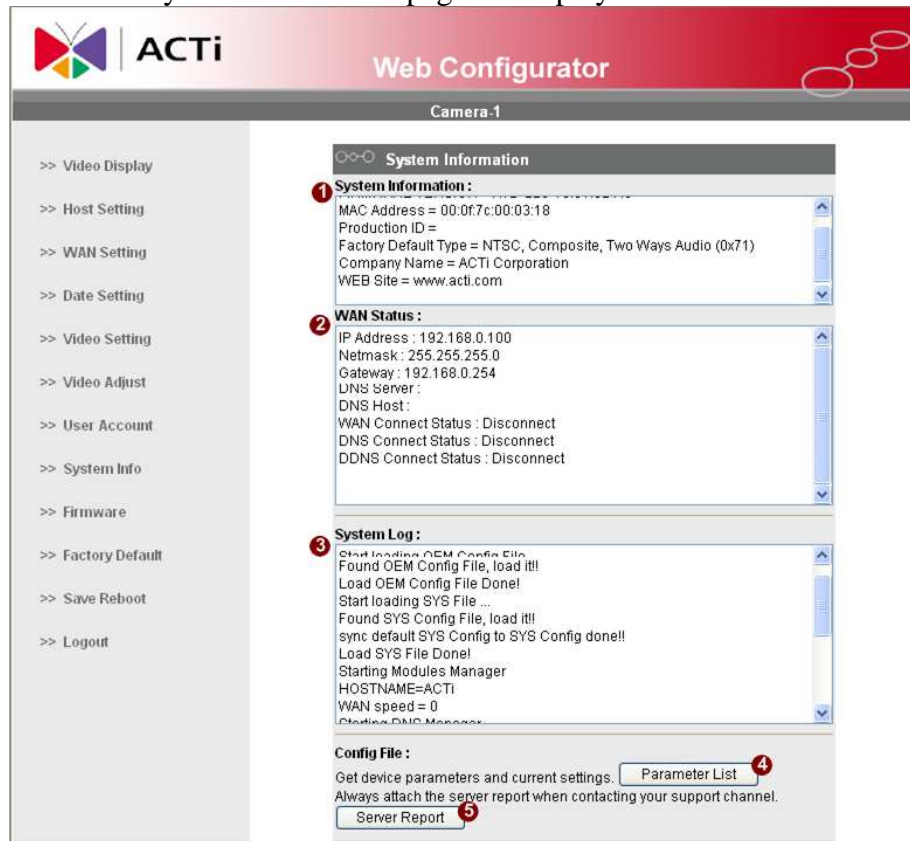
NOTE: Once you finish all settings, be sure to click the [Save Reboot] button. Otherwise, some settings may not take effect.

1.3.13 System Info

This section tells you how to see the system information of this IP device including system information, WAN status and system log.

- **STEP1:** Click the [System info] on the “Main Setup page”.

The “System information page” is displayed as below



- **STEP2:** View the information at the 3 columns. This information is very useful to understand the IP device status and to resolve any problem that might occur.

■System info

| Column | Description |
|---------------|--|
| 1 System info | It shows the firmware version, MAC address, production ID, and factory default type of IP device. |
| 2 WAN status | It shows the WAN port's IP address, netmask, gateway, DNS server, DDNS host and connection status. |
| 3 System log | It shows the system event. This column is very useful as a diagnostic tool. |

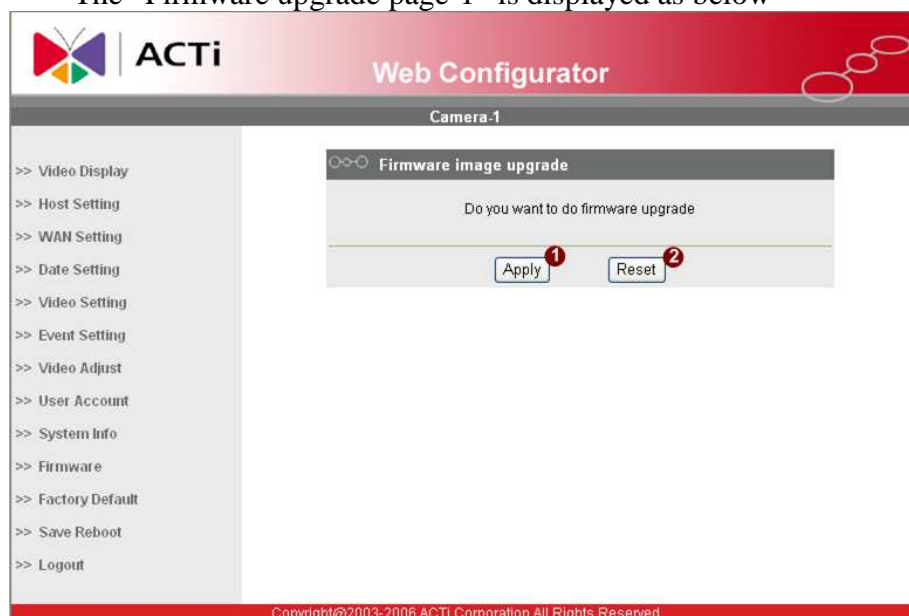
- **STEP3:** Click 4 [Parameter List] where you may see all configurations of the IP device.
- **STEP4:** Click 5 [Server Report] to export related information of the IP device while contacting to your support channel.

1.3.14 Firmware Upgrade

This section tells you how to see update IP device's firmware. You can always visit our web site for the latest firmware.

- **STEP1:** Click the [Firmware] on the “Main Setup page”.

The “Firmware upgrade page-1” is displayed as below



- **STEP2:** Click ¹[Apply] button. The “firmware upgrade page-2” will be displayed as below.



■ Date Setting

| Parameters | Description |
|-----------------------------------|--|
| ³ Firmware images file | You can upload the firmware images here. Click the [browse] to select the an image file and click the [enter]. You can always get the latest version at our website. |
| ⁴ MD5 file | You can upload the MD5 file here. Click the [browse] to select an MD5 file and click the [enter]. You can always get the latest version at our website. |



NOTE: The version of the firmware image and the MD5 file to be uploaded must be the same, otherwise, the firmware upgrading will fail and the IP device will continue using previous firmware version.

- **STEP3:** Click the **5** [Upload] button to start upgrading or click the [Reset] to re-select the files.
- **STEP4:** The upgrade process window shows a progress bar indicating upgrade status.



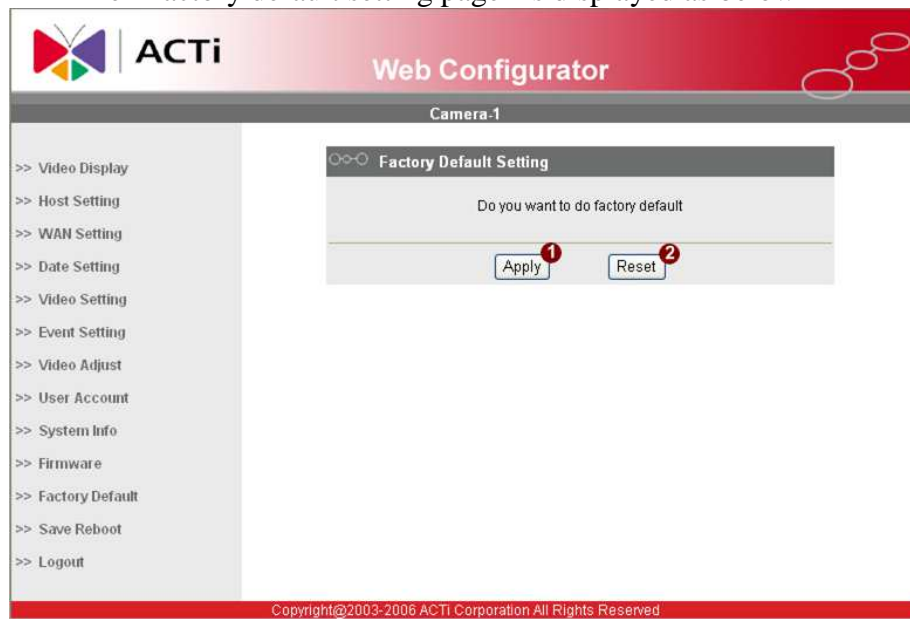
- **STEP5:** The progress bar shows the upgrading is completed, and system is rebooting.

1.3.15 Factory Default

This section tells you how to load IP device's factory default setting.

- **STEP1:** Click the [Factory Default] on the "Main Setup page".

The “Factory default setting page” is displayed as below



- **STEP2:** Click the [Apply] button to go to loading confirmation page or click the [Reset] button to exit to previous page.
- **STEP3:** A confirmation page will be displayed. Click the [Save Reboot] button to start loading factory default settings.

1.3.16 Save Reboot

This section tells you how to save all the settings and reboot this IP device. This is critical because some settings might not take effect before save and

reboot.

- **STEP1:** Click the [Save and reboot] on the “Main Setup page”.

The “Save and reboot page” is displayed as below.



- **STEP2:** The Action LED indicator will go off to indicate that the IP device is rebooting. After around 30 seconds, the Action LED will light up again to indicate that the reboot is completed.

1.3.17 Logout

This section tells you how to logout from the IP device. Be sure to logout this IP device once your setting is completed.

- **STEP1:** Click the [Logout] on the “Main Setup page”.

You will logout and return to the “Login Page” displayed as below.



The screenshot displays the ACTi Web Configurator interface. At the top, a red header bar contains the ACTi logo on the left and the text "Web Configurator" in the center. Below the header, a dark grey bar indicates "Camera-1". The main content area features a "Login" dialog box with the following elements: "Account" and "Password" text labels followed by input fields, a "Language" dropdown menu currently set to "English", and "Login" and "Reset" buttons at the bottom. A mouse cursor is positioned over the "Reset" button. The footer of the page is a red bar with the text "Copyright@2003-2005 ACTi Corporation All Rights Reserved".